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Title of Thesis — Titre de la thèse

A CAREER DEVELOPMENT PROGRAM FOR NINTH GRADE STUDENTS

University — Université

U. of A.

Degree for which thesis was presented — Grade pour lequel cette thèse fut présentée

M. Ed. (COUNSELLING PSYCHOLOGY)

Year this degree conferred — Année d'obtention de ce grade

1980

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THE UNIVERSITY OF ALBERTA

A Career Development Program for Ninth Grade Students

by



Graham E. Ross

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF Master of Education

IN

Counselling Psychology

Educational Psychology

EDMONTON, ALBERTA
FALL, 1980

THE UNIVERSITY OF ALBERTA
FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled A Career Development Program for Ninth Grade Students submitted by Graham E. Ross in partial fulfilment of the requirements for the degree of Master of Education in Counselling Psychology.

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ABSTRACT

There are two elements which are integral to this study. One is the concept of career maturity as developed by Super and later modified by Crites. The second is the vocational guidance program developed by the writer. The primary intent of this study is to examine any changes in the career maturity of ninth grade students after having been exposed to the writer's program.

In this study the Career Maturity Inventory developed by Crites was chosen as an appropriate instrument to evaluate any changes in career maturity resulting from the students' exposure to the program. In addition to the examination of the Career Maturity Inventory, this study includes a summary of Super's work and the subsequent modifications by Crites. A detailed examination of four vocational guidance programs used in the Edmonton area is compared and contrasted to the writer's program.

The original sample consisted of 106 ninth grade students. It was subsequently reduced to 96 students in order to allow for the proper statistical analysis. The sample was drawn from the ninth grade student population at Spruce Grove Composite High School in Spruce Grove, Alberta. An expanded discussion of the sample, along with a presentation of the research method is included.

The statistical analyses involve descriptive statistics as well as three-way analyses of variance, based on the results of the Career Maturity Inventory pre-test and

post-test scores.

There are three major findings. One, that there was a significant vocational maturation for all subjects over time. Two, that although the experimental group made larger gains than the control group, they were not statistically significant. Three, that there was a significant difference in the way the males and females responded on the pre-test and post-test.

Table of Contents

Chapter	Page
I. INTRODUCTION	1
PURPOSE OF THE STUDY	1
THE PROBLEM	1
NEED AND SIGNIFICANCE	1
PLAN OF THE REPORT	4
II. REVIEW OF THE LITERATURE	5
INTRODUCTION	5
SUPER'S THEORY	5
VOCATIONAL MATURITY	6
CRITES' MODIFICATION	8
THE CAREER MATURITY INVENTORY	11
STATISTICS	16
CURRICULUM DEVELOPMENT	18
CREATING A CAREER	20
INDEX TO CANADIAN OCCUPATIONS	21
TOWARD AFFECTIVE GUIDANCE	22
CAREER DEVELOPMENT AND LIFE MANAGEMENT	23
RATIONALE	25
GOAL STATEMENTS	28
COMPARISONS	30
HYPOTHESES	33
SUMMARY	34
III. RESEARCH METHOD	35
INTRODUCTION	35
THE SAMPLE	35

THE METHOD	36
ANALYSIS	37
THE PROGRAM	38
SUMMARY	40
IV. RESULTS	41
INTRODUCTION	41
MEANS AND STANDARD DEVIATIONS	41
THREE WAY ANALYSIS OF VARIANCE	43
ATTITUDE SCALE	45
SELF-APPRAISAL	47
OCCUPATIONAL INFORMATION	49
GOAL SELECTION	51
PLANNING	53
PROBLEM SOLVING	56
TOTAL DATA	58
HYPOTHESES SUMMARY	61
SUMMARY	63
V. DISCUSSION	65
INTRODUCTION	65
LIMITATIONS OF THE STUDY	65
HYPOTHESIS ONE	65
HYPOTHESIS TWO	67
HYPOTHESIS THREE	69
EVALUATION AND RECOMMENDATIONS	70
SUMMARY	74
BIBLIOGRAPHY	76
APPENDIX 1	

TIME LINE FOR VOCATIONAL GUIDANCE NINE 80

APPENDIX 2

VOCATIONAL GUIDANCE ASSIGNMENTS 85

LIST OF TABLES

TABLE	PAGE
1. Means and Standard Deviations by Group for Pre-Test and Post-Test on the CMI.....	42
2. Means and Standard Deviations by Sex for Pre-Test and Post-Test on the CMI.....	44
3. Three Way Analysis of Variance for Attitude Scale.....	46
4. Three Way Analysis of Variance for Self-Appraisal.....	48
5. Three Way Analysis of Variance for Occupational Information.....	50
6. Three Way Analysis of Variance for Goal Selection.....	52
7. Three Way Analysis of Variance for Planning.....	54
8. Three Way Analysis of Variance for Problem Solving.....	57
9. Three Way Analysis of Variance for Total Data.....	59
10. Hypothesis Summary.....	62

LIST OF FIGURES

FIGURE	PAGE
1. A Model of Career Maturity in Adolescence.....	9
2. The Grade Nine Program by Hour.....	29

I. INTRODUCTION

PURPOSE OF THE STUDY

The primary function of the study was to determine whether career maturity could be accelerated by exposing ninth grade students to a vocational program. Another area examined was whether males and females would respond differently to the program.

THE PROBLEM

The expectation was that all subjects would display some vocational maturity over the course of the study. The problem under investigation was to examine the program developed by the writer in terms of whether those exposed to it would display a significantly accelerated career maturity.

NEED AND SIGNIFICANCE

The psychology of vocational development is a recent and significant branch of general psychology. Significant in that within the last ten years there has been a marked increase in the volume of literature published with respect to vocational development and its related areas. Recent in that it was not until Donald Super began his work in the 1950's that the theory of vocational development began to take on form and substance. His early work borrowed heavily from the established areas of psychology, for example, trait

theories, stage theories, and developmental psychology.

Human psychology has made people aware that individuals differ in their abilities, interests, and personalities. One of the consequences of these differences relates to vocational development and the choice of an occupation. Each occupation requires a general pattern of abilities, interests, and personality traits. Therefore it is argued that certain individuals will be better suited to a specific occupation, or cluster of occupations.

Vocational development and the choosing of an occupation on the basis of competencies and preferences is a continuous process. Maturation will affect the rate of development as well as the competencies and preferences of the individual. Therefore the concept of vocational maturity is central to vocational development. Vocational maturity is related to the life stage of the individual and the developmental tasks appropriate for that stage. Super defines vocational maturity as the

readiness to make the vocational decisions called for by society, revealed by methods of coping with developmental tasks which are occupational in nature. (1964 p.5).

Society is calling for its adolescents to make vocational decisions at increasingly earlier ages. The ninth grade students are especially called upon to make significant vocational decisions. These decisions relate specifically to choosing a high school program. Although they appear to be educational decisions, they are also

vocational decisions. They are vocational in that they will not only affect the individual's high school program but also post-secondary training and future employment.

The difficulty for the ninth grade students is their level of vocational maturity is often inadequate for the decisions society asks them to make. Another difficulty is that society does not provide any formal assistance for these children to aid them in their decision making process. As a result, they frequently make poor decisions. This demonstrates the need for an increased vocational maturity among ninth grade students prior to their selection of high school courses.

For ninth grade students to attain a higher level of vocational maturity than they now evidence, the process of maturing is going to have to be accelerated. Other studies (Bookhamer 1977; Clark 1977; and Matthews & O'Tuel 1978) have examined the issue of enhancing vocational maturity. These studies involved the implementation of a program designed to enhance career maturity. The results of these studies are inconclusive in that they do not show any clear indications that career maturity can be significantly accelerated.

The present study focuses on the development of a career maturity program designed to enhance the career choices made by the adolescents in grade nine. It also provides the students with a formal structure to select courses for their high school program. In choosing high

school courses appropriate to their vocational goals, interests, and abilities, the students would more likely view their high school experience as positive. A program that would accelerate vocational maturity and formally aid the students in selection of high school courses would be a valuable tool in the ninth grade curriculum.

PLAN OF THE REPORT

The discussion here substantiates the need for a program to accelerate career maturity. Chapter II examines the theoretical background, the instrument used in the assessment of career maturity, and other programs presently in use. Chapter III describes the method used in conducting the study. Chapter IV describes the results of this study. Chapter V discusses these results and makes recommendations regarding the future use of the writer's program.

II. REVIEW OF THE LITERATURE

INTRODUCTION

There are four major areas outlined in this chapter. The first covers the theory of career development and the concept of vocational maturity, including a review of the Career Maturity Inventory. The second area contains a brief review of four vocational guidance programs which are used in the Edmonton area. The third section outlines the vocational guidance program developed by the writer, including a comparison of it with the programs discussed in the second section. The final portion of this chapter contains a statement of the hypothesis relevant to this study.

SUPER'S THEORY

The first extensive statement of Super's theory appeared in Career Pattern Study (1957). Super contended that career development, like human development, is evolutionary in nature. This contention was a shift in emphasis of the psychology of occupations which, up to that time had been characterized by a 'matching men to occupations' orientation.

A brief overview of Super's theory will aid in portraying his view of career development. Super sees career development as a continuous and generally irreversible process, which he considers to be orderly and predictable.

He also sees it as a dynamic process, involving the synthesis of several individual factors, including self-concept. In fact he states that during adolescence, self-concept is viewed in occupational terms.

Each occupation, says Super, requires a characteristic pattern of abilities, interests, and personality traits. The tolerances of these patterns are wide enough to allow a variety of individuals in each occupation and broad enough to allow some diversity of occupations for each individual. Work satisfaction depends on factors like the extent to which an individual can find expression of his interests, abilities, values, and personality traits, and his ability to portray his self-concept through his work (Super 1957).

VOCATIONAL MATURITY

A very significant aspect of Super's theory is the concept of vocational maturity. He defines vocational maturity in two ways:

Vocational maturity I focuses on life stages and is indicated by the actual life stage of an individual in relation to his expected life stage (based on his chronological age). Vocational maturity II focuses on developmental tasks and is represented by the behavior of the individual in handling the developmental tasks with which he is actually coping. (1957 p:132).

The assessment of vocational maturity can be made in two ways. One way, focusing on definition I, is to compare the actual life stage of the individual to the life stage that would be expected for that individual. The other way,

involving definition II, is to compare the method used by the individual in carrying out developmental tasks to the methods used by others performing the same tasks.

Super developed the following five dimensions which he utilized in the assessment of vocational maturity. They are:

- 1) Orientation to vocational maturity.
- 2) Information and planning about the preferred occupation.
- 3) Crystalization of traits.
- 4) Consistency of vocational preferences.
- 5) Wisdom of vocational preference.

In 1963 Super began to make his theory of career development more specific. One area that he revised was that of vocational maturity. He stated that vocationally mature behaviour will appear differently, depending on where the individual is with respect to his life stage (Super 1963). This explains why two individuals who are at two different life stages in development can each display vocationally mature behaviour, yet display different types of behaviour. Despite the change in his concept of vocational maturity in 1963, the basis for defining vocational maturity is still contained within Super's earlier work in 1957. Since vocational maturity is such an integral element of both Super's and Crites' theories, this study will in part be devoted to determining whether or not the research sample demonstrated increasing vocational maturity over the length of the study.

CRITES' MODIFICATION

Crites modified some of Super's concepts of vocational maturity. He did his work in the early 1960's through a government funded project called the Vocational Development Project. The design for the Vocational Development Project was derived from Super's work in the analysis of vocational maturity. The results of Crites' modification yielded a model on which he based further work (see Figure 1). Crites' later constructed a standardized instrument to measure vocational maturity.

A succinct review of Crites' model was given by Super (1974). He stated the model has three interrelated levels. The lowest level contains career behaviours, which, according to Crites' theory, should mature with time. These are the most specific behaviours given in the model. These career behaviours are grouped into four factors (the middle level):

- 1) Consistency in career choices
- 2) Realism of career choices
- 3) Career choice competencies
- 4) Career choice attitudes

These factors are expected to intercorrelate in the .50 to .60 range. The upper level in the model is the general factor, Degree of Career Development. The model is hierarchical in nature, and reflects Crites' reorganization of Super's original dimensions.

The development of the Career Maturity Inventory

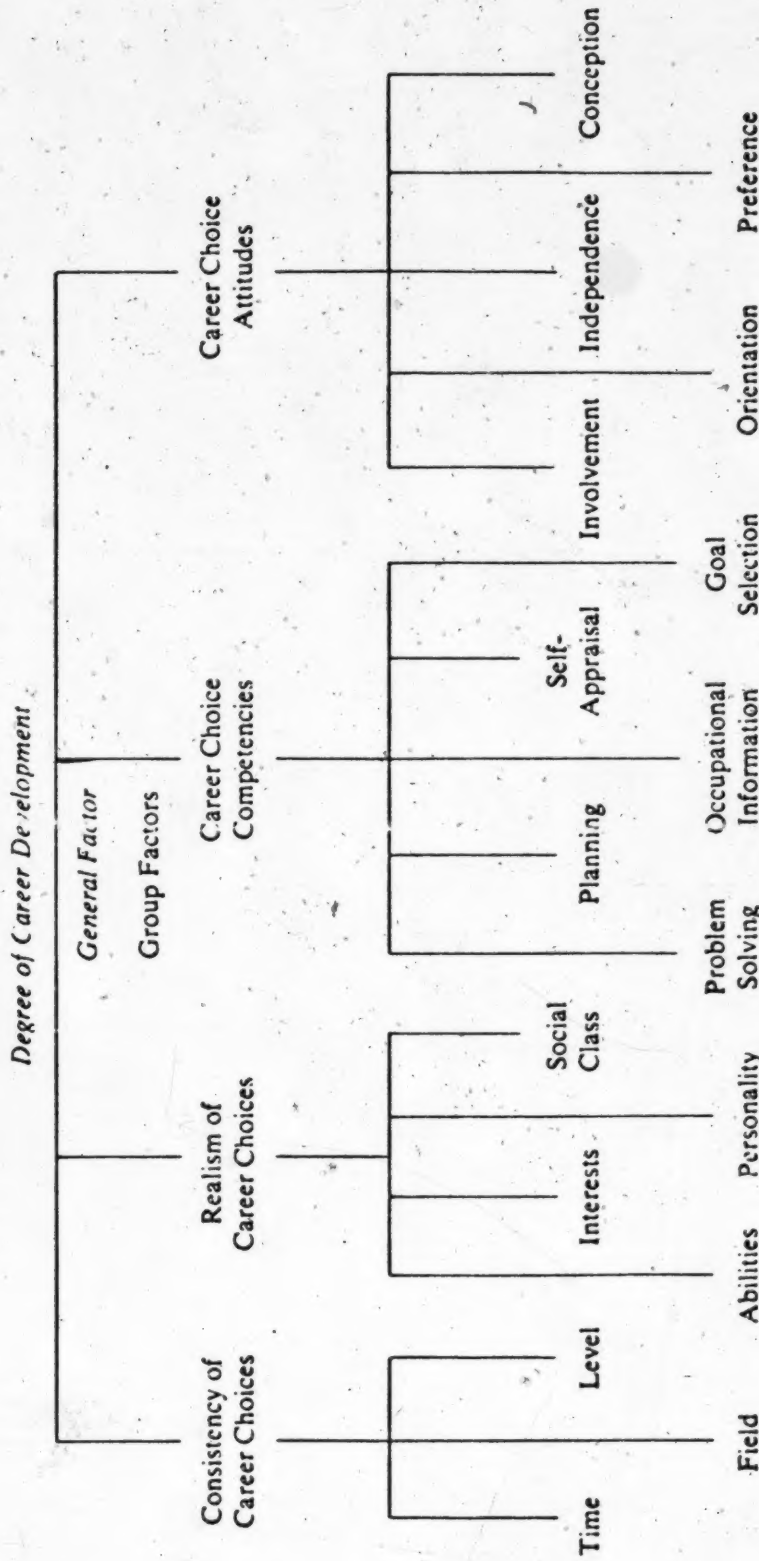


Figure 1 A Model Of Career Maturity In Adolescence (Crites 1973b)

required a rational-empirical approach. According to Crites (1969), this meant that for any measure of vocational development to be useful it must be theoretically relevant. That is, the constructs measured must be viewed as part of the system used to develop the hypotheses. The measure of vocational development must also enter into a significant relationship with other variables that deal with vocational development. Finally, any measure of vocational development must correlate with time, chronological age, or grade. The time function should be considered non-reversible, with vocational development progressing incrementally with time. Several studies have examined and confirmed the correlation with grade (Adelstein & Webster 1979; Herr & Enderlein 1976; and Moore & McLean 1977). As time and age also increase with grade the same confirmation would be expected.

Before developing an objective measure of career maturity, Crites (1965) modified the five dimensions developed by Super as outlined on page seven. He retained the dimensions "consistency of vocational preference" and "wisdom of vocational preference", later renaming the latter "realism of career choices". Crites condensed Super's first three dimensions-- "orientation to vocational maturity", "information and planning about the preferred occupation" and "crystalization of traits" --into two-- "career choice competencies" and "career choice attitudes". Career choice competencies refers to cognitive processes, such as vocational problem solving and planning. Career choice

attitudes are considered to measure the affective domain.

The first product of Crites' project, designed to measure vocational maturity, was the Vocational Development Inventory. It was an instrument constructed so that its variables represented the central concepts in vocational developmental theory, and its scores related monotonically with time.

Later he developed the Career Maturity Inventory. It was used to evaluate more of the dimensions involved in career maturity. The first half of the Career Maturity Inventory resembled the Vocational Development Inventory, focusing primarily on the affective aspects. The second half of the Career Maturity Inventory measured the cognitive aspects of career maturity.

THE CAREER MATURITY INVENTORY

As just outlined, Crites' initial modification of Super's theory yielded the Vocational Development Inventory and further modification (1973b) gave rise to the Career Maturity Inventory (CMI). In this section of the chapter the development and rationale of the CMI is presented. The CMI is divided into two sections, the Attitude Scale and the Competencies Test.

The first section is the Attitude Scale, which is related to the career choice attitudes. It is designed to measure both the subject's affective responses to making a career choice and his attitudes toward the world of work. As

can be seen in Figure 1, there are five factors under the group factor "Career Choice Attitudes". The first factor is "involvement in the choice process". This factor is designed to measure the extent to which the individual actively participates in making a career choice. Another factor is "orientation toward work". This factor measures the individual's task-orientation or pleasure-orientation toward work and work values. The third factor, "independence in decision-making", measures the degree to which an individual relies on others in the choice of an occupation. The next factor, called "preference for career choice factors", measures the extent to which an individual bases a career choice upon a particular factor. The final factor, "conceptions of the choice process", assesses the accuracy of a person's conceptions about making an occupational choice. These factors have not been separated or analyzed by Crites; they are grouped together and produce a measure of career attitudes, namely the Attitude Scale.

According to Moore & McLean (1977), Crites proposed a sixth factor for the first section of the CMI. They state that Crites proposed this factor, called "indecision in career choice", in an unpublished manuscript entitled, "Dimensions of Career Attitudes in Adolescence" (1975). This factor apparently measures the individual's degree of surety in making a career choice. To date Crites has not included it in any published works.

The second section of the CMI is the Competencies Test.

It is related to career choice competencies. It is designed to measure the cognitive variables involved in choosing an occupation.

The Competencies Test is composed of five factors. The first factor, "self-appraisal", gives the individual an appraisal of his job-related capabilities. The next factor, "occupational information", measures the subject's knowledge of the world of work. The third factor "goal selection", tests the individual's ability to match personal characteristics with occupational requirements. "Planning" is the fourth factor, and quantifies an individual's foresight in career planning. The last factor, "problem solving", assesses a person's ability to cope with the problems that may arise in choosing a career. Each of the above factors in the Competencies Test is measured by its own sub-test.

Westbrook (1976b) confirmed the intended function of the Competencies Test when he found a .88 correlation of the second section of the CMI with the Cognitive Vocational Maturity Test, "...an external variable considered to provide an independent measure of the behavior in question" (Westbrook 1976b p.381).

The CMI has been used in a multiplicity of studies designed to correlate a change in career maturity with a vast range of other factors. Some of these factors are as follows. Clark (1977) found the CMI especially useful in raising the career maturity of those with low-average IQ's.

Betz (1977) discussed the positive correlation found between career maturity and IQ in a study by Lawrence and Brown (1976). Matthews and O'Tuel (1978) stated all sub-tests on the CMI correlate positively with IQ except Problem Solving. Seward (1978) found that students registered in the higher level business courses showed greater mean scores on the CMI. In addition, the more specific the program was the higher the mean scores of the students. Herr and Enderlein (1976) stated there was a differential score on the CMI favoring those high school students in the academic program when compared to those in business, vocational, or general. Drummond (1975) found students taking the more technical programs had higher mean scores than those in the more general programs. Meir and Shiran (1979) found that if an individual's understanding of occupational structure is increased there is a resulting increase in career maturity. Bingham (1978) shows that although children with learning disabilities have lower mean scores on the CMI Attitude Scale, they show an increase in score with an increase in age. Hamdani (1977) indicated that those who are culturally disadvantaged show lower mean scores in the CMI than those who are not disadvantaged. In this study, however, the CMI was selected to measure a change in career maturity in a group of ninth grade students who received a vocational guidance program.

The publisher claims the readability of the CMI is at the sixth grade level. Crites states as an individual

reaches second or third year college, the instrument is unable to accurately assess his vocational maturity.

Crites maintains that the instrument applies equally to males and females. Other researchers have found that there are differences attributable to sex; Adelstein & Webster (1979), for example, suggest that research and interpretation of scores on the CMI attitude scale should proceed separately for males and females. Herr & Enderlein (1976) found the maturity for females increased linearly whereas the males' maturity leveled off after grade ten. They also found that females generally scored higher than males. Bookhamer (1977), working with ninth grade students, found that treatment males scored higher than treatment females on the Attitude Scale, Occupational Information, Goal Selection and planning while treatment females scored higher than treatment males on Self-Appraisal and Problem Solving. Matthews and O'Tuel (1978) concluded that males responded better to treatment than females. Although the results of these studies are not conclusive, it appears that sex is a factor which affects career maturity. Since this is an area that is still in dispute, it would appear useful to analyze this particular sample of grade nines with respect to sex differences. Therefore the data will be analyzed for sex differences.

One of the stated uses of the CMI is the evaluation of career education programs (Crites, 1973a). Several studies have used the CMI with ninth grade pupils to determine if

any of the various programs had an effect on the career maturity of the individuals. Both Clark (1977) and Bookhamer (1977) used this instrument to measure changes in career maturity brought about by their respective programs. Clark found only the experimental males made gains, although not significant. Bookhamer found no significant differences; however, the treatment group tended to score higher on the post-test than the control group. The expectation is that the CMI will be able to indicate any changes in career maturity as well as to identify weak areas of the program.

STATISTICS

Research on part one of the CMI is far more extensive than on part two because part one is essentially the same as the earlier VDI. Using the Kuder-Richardson 20 formula for internal consistency, Crites (1973b) determined the range of the reliability of the Attitude Scale to be .65-.84 with a mean of .74. Hanna & Neely (1978) in a study with ninth grade students found a reliability of .70 using the KR-20 and a reliability of .71 using a split-half technique. In another study with ninth graders, Westbrook & Cutts (1978), using the KR-20, found the reliability of the Attitude Scale to range from .58 to .81. Crites (1973) found a test-retest reliability over a one year period of .71. His comment was that a high test-retest reliability should not be expected, as the individual is expected to mature over time. Westbrook & Cutts (1978) found a test-retest reliability over a 3

month interval of .78 for ninth grade students. As the second section of the CMI was never used alone as an instrument, reliability investigations usually involve the whole of the CMI rather than just part two. For example, Westbrook and Cutts (1978) in examining the CMI found the reliability (using the KR-20) to be between .64 and .80. Westbrook (1976b), again working with ninth grade students, estimated the reliability of the total instrument at about .90.

Crites (1973b) assessed the validity of the first section of the CMI in three ways. The content validity was determined to be good, as the rational-empirical approach was used in the construction of the CMI. Inter-judge agreement with respect to the construct validity was 74%. Criterion related validity was determined by comparing scores with external variables that measure vocationally mature behaviours directly. He found correlations of .39 and .31 for the Attitude Scale. He then concluded the validity was good.

Crites (1973b) examined the construct validity for part two. The examination was based on the format of the CMI and how well the results correlated with the theory. The range for part two was .25 to .73 with a median of .54. The criterion-related validity of the second section of the CMI was examined by Westbrook (1976). Using ninth grade students, he correlated this section of the CMI with the Cognitive Vocational Maturity Test, an independent measure of the same

variables. He found correlations of .88. Neely & Hanna (1978), again with ninth grade pupils, found the criterion-related validity to be significant.

Correlational studies have been done between the Attitude Scale (part one) and the Competencies Test (part two). Westbrook & Cutts (1978) found a median correlation of .56. Westbrook (1976a) found a range of .43 to .52 with a median of .47. In another 1976 study he placed the correlation between the Attitude Scale and the Competencies Test in the .57 to .64 range. Westbrook (1976c) found a range of .50 to .60. Many of the same studies examined the intercorrelations of the sub-tests of the Competencies Test. Hanna and Neely (1978) found a median correlation of .56. In three different studies Westbrook (1976a; 1976b; 1976c;) found correlations in the .57 to .70 range; .41 to .66 range; and .50 to .60 range respectively. Overall it can be stated that the reliability and validity of the CMI is acceptable.

CURRICULUM DEVELOPMENT

The major focus of this study will be an examination of the effects of the writer's program on the vocational maturity of the ninth grade students from Spruce Grove Composite High School. Although original in its development, the program is based on the work of vocational theorists and uses components that have been developed by others. Before the selection of the various components could be made, the

general objectives had to be developed in terms of goal statements.

Baily and Stadt (1973) outline a general conceptual model for curriculum development consisting of five phases:

- I the selection of curricular language;
- II the formulation of goals and objectives;
- III the preparation of instructional products;
- IV experimental tryout, evaluation, and quality control;
- V diffusion and adoption.

Of particular interest to the writer is their phase II. They quote Krathworth (1965) who says that general statements are the most helpful in the development of programs of instruction or in deciding the areas to be covered in a course. It is to that end that six general goal statements were adopted. These statements (p.28) are entitled; Affective, Self-Appraisal, Occupational Information, Goal Selection, Planning, and Problem Solving.

Bailey and Stadt later discuss a stage called "orientation stage grades 7-8". In Alberta this stage applies to grade nine students because one of the sub-topics is high school registration. They point out that the decision of the student regarding high school programming is as much a career decision as an educational one. In reference to this stage, Jordaan (1963) stated that vocational exploratory behaviour involve activities which function to elicit information about oneself and one's

environment in order to prepare for an occupation.

With the development of an instrument to measure vocational maturity came the question of whether vocational maturity could be influenced, that is accelerated, by a curriculum designed to enhance vocational maturity. The assumption has been that maturity can be accelerated, an assumption that has led to the development of many vocational guidance or vocational development programs. Four of these programs, all used locally, will be briefly examined. This will lead to an examination of the writer's program with a short section comparing and contrasting his program with those reviewed.

CREATING A CAREER

Creating a Career (1976) is a curriculum based vocational guidance program. It includes a student workbook, a career planning guide, a job search guide, an exploring occupations kit, and an instructor's manual. It is divided into two parts, career planning and job search. Each of these takes 50 hours of student time to complete. The classroom instruction time varies with the number of students, motivation of the group, ability of the instructor, and other factors. The career planning section involves self assessment, decision making, and occupational exploration.

It begins with an introduction to decision making. A model for decision making is presented, accompanied by

several exercises to reinforce the effect of decision making on career choice. The self-assessment portion uses some testing, however the program relies on subjective self-assessment activities using survey-type forms. The career search portion involves an in-depth study of some specific occupations. The final section of the program involves a discussion of the various ways of attaining occupational goals. It is the career planning section which most closely resembles the 30 hour vocational program developed by the writer.

INDEX TO CANADIAN OCCUPATIONS

The Index to Canadian Occupations (ICO), published in 1979, was designed to help people to choose career goals and to explore the world of work. The program consists of six booklets of occupations, the occupational exploration questionnaire (OEQ), the Grid-aid to occupational choices, and a counsellor's manual. For each characteristic mentioned in the OEQ there is a booklet of occupations classified according to interest factors, temperament factors, abilities factors, physical factors, environmental conditions, and education and training routes.

The ICO can be used separately or in conjunction with other vocational programs. There are four basic steps in its use. The first step involves self-rating. The participant fills out the OEQ, checking areas where he finds factors regarding occupations that he would like to be involved with

or be willing to be involved with. This section can be used in conjunction with more objective measures of abilities or interests (such as the GATB or the Canadian Occupational Interest Inventory, COII). If a more objective assessment is not available, it can be used entirely as a self-rating exercise. The second step involves the choosing of occupations from the six booklets of occupations. Each booklet corresponds to an area in the OEQ. The student lists occupations from each booklet in accordance with his responses to the OEQ. The third step requires identifying occupations for further study. The identification is made on the basis of frequency. The more lists an occupation appears on, the more strongly it is indicated as an occupation for further study. The last step involves the actual exploration of the occupation. With the ICO the major goal in this phase is to put the client in touch with sources of information rather than with the methodology of investigation.

TOWARD AFFECTIVE GUIDANCE

Toward Affective Guidance (TAG), 1977, is a course outline and series of specific lesson plans for teachers of grade nine students in the Edmonton Public School System. It is a sequential program divided into four units: decision making, effective studying, career planning, and high school orientation. The decision making unit is based on a decision making model. The format for this unit requires small group discussions and exercises. Included is a study of values and

how they affect decisions. The goal of the second unit is to help the student to study efficiently. An evaluation of the student's study habits is made and a method of studying is presented. The third unit is career planning. This is designed to help the student to explore the forces involved in career selection, rather than to select a specific career. It contains an objective testing section followed by a small section on values in careers. The students then choose one career and do an in-depth exploration of that career. This unit also includes a section on job applications. The final unit is high school orientation. Both the academic and behavioural areas of the high school system are covered. The final activity is to aid the student in developing an individual grade ten high school program.

CAREER DEVELOPMENT AND LIFE MANAGEMENT

Career Development and Life Management (1978) is a program very similar to TAG in that it was developed for the Edmonton Public School system by a committee of its employees. Part of the purpose was to compile resources suitable for teachers and counsellors to use in the career development and life management areas, as well as to place various materials at appropriate grade levels. The program is divided into four units: self-concept development, learning and living skills, career development, and appreciation and attitudes. Each unit is divided into three grade levels: ten, eleven, and twelve. Each unit spends some

time in applying the content in a vocational context. In unit one only the grade eleven activities relate directly to vocations, from the perspective of interests, abilities, values and testing. In unit two, none of the grade 10 activities are involved with vocational study. The grade 11 activities relate decision making to vocational planning (many of the exercises come from TAG). The grade twelve activities involve some decision making; however the focus is on the practical skills in securing employment; involving for example, application forms, resumes, interviews, and job investigations.

The third unit is career development. This unit has career related exercises at all levels. The grade ten level involves topics like choosing a grade eleven program, sources of occupational information, and myths and realities of employment. The grade eleven activities contain topics such as choosing a grade twelve program, career planning, job families, an in-depth study of a job family and a study of a specific occupation. The grade twelve year involves activities related to employment trends, looking at the job market, and a study of post-secondary institutions.

Unit four, appreciations and attitudes, also relates its exercises at all three levels to career development. The grade ten level includes the relationship of school subjects to educational and vocational interests, careers today, and trends for the future. The grade eleven level involves decision making and an examination of males and females in

the world of work . The grade twelve year includes topics such as work expectations, leisure time, and career lifestyles and stereotypes.

RATIONALE

In this section the rationale for the program developed by the writer will be given. An examination will be made both of the program as well as of the amount of time spent on the various parts of the program. Appendix 1 contains a detailed outline of the program developed by the writer. The program contains four main sections: decision making, testing, career exploration, and high school programming. It was the view of the writer prior to the development of the program that grade nine is a significant year for students, for it is in that year they choose their high school program, which in turn often dictates the type of education they receive in later years and hence the type of occupation they will enter. It was also observed that grade nine students make the selection of high school courses on little information and with little understanding of the implications of their choices. The writer's program was in part designed to aid these students make more informed and intelligent decisions.

The first section of the program is a decision making unit. This unit consists of about 10% of the total time, of 30 hours for the program. Both the career exploration unit and the high school programming unit involve decisions that

will be significant to the student. This unit was included in the program to aid the student in making better decisions. It gives those students who have no system by which they make decisions a model of decision making to incorporate in their repertoire. The focus of this unit is specifically on career decisions, although time is spent on general decisions.

The second unit was allotted about 20% of the time for the program. It is a testing unit. In this unit an aptitude test and an interest inventory are given to the student. After the student has finished both instruments, the results of the test and the inventory are given back to the student. The testing has two functions. The primary function is to guide the student in the choice of careers to explore. On the basis of the results, the student is to examine occupations for which he has both the interest and the aptitude. The secondary function is to obtain more data (from the aptitude testing) so that an estimate of the student's success can be made.

The third unit, career exploration, was given about 50% of the time allotted for the program. This unit involves an intensive career exploration section, based on the results from the testing. Students who wished to explore a specific career which did not show up in the testing were allowed to do so. It was hoped that several things would be accomplished in this section: one, that the students would realize that there were many more occupations to choose from

than they had previously considered; two, that they would explore occupations that were relevant to them at the time; three, that the students would become aware of the many factors which enter into choosing a career; and finally, that they would study in detail several occupations to which they may have had no exposure. This unit also included an opportunity for each student to interview an individual who was employed in the occupation they were exploring. The intent here was to help the student see the human dimension of the occupation. That is, individuals do not see their occupation as all good or all bad and that personality and temperament enter into one's satisfaction with a career.

The final unit was given 15% of the time for the program. This unit involves the development of a high school program for each student. The intent was to aid the student in making educational decisions. It was hoped that by giving a student school time to make this decision, the importance of the decision would become clearer. The decisions were made on the bases of grade nine marks, the aptitude test, the interests of the student, parental wishes, teacher recommendations, and the student's own desires.

The remaining time was spent in class discussion and course evaluation. Assignments were given throughout the year to help the students focus their efforts. The assignments also served as motivators and as a basis of evaluation.

GOAL STATEMENTS

This section will translate the aims of the writer's program into a format that will allow a more objective evaluation. The writer's program was developed prior to choosing the instrument for assessment (the CMI). It was found however the CMI measured well the areas contained in the program. The result was the program was assessed in six specific dimensions. Each dimension of assessment was followed by a statement that defined what was being evaluated in that dimension. In Figure 2, each hour of the program is matched with the dimension that is used in evaluating that hour. Following are the six dimensions used to evaluate the program:

- 1 Affective - To enhance the student's personal involvement in career choice, orientation to work, independence in decision making, and conception of career choice process. This dimension involves the units of decision making and career exploration.
- 2 Self-Appraisal - To enhance the student's ability to appraise his/her own capabilities as they relate to vocations. This dimension involves the units on testing and career exploration.
- 3 Occupational Information - To increase the student's knowledge about jobs and the world of work. Career exploration is involved in this dimension.
- 4 Goal Selection - To increase the student's ability to recognize and match various personal qualifications to

Figure 2
The Grade Nine Program By Hour

HR.	AFFEC- TIVE	SELF- APPRAISAL	OCCUPATIONAL INFORMATION	GOAL SELECTION	PLAN- NING	PROBLEM SOLVING
1		x		x	x	
2					x	x
3				x	x	x
4		x				
5		x				
6		x				
7	x	x				
8		x	x	x		
9		x	x	x		
10	x	x				
11	x		x	x		x
12	x	x				
13	x	x				
14	x	x	x	x		
15	x	x	x	x	x	
16	x	x	x	x	x	
17	x	x	x	x	x	x
18	x	x	x	x	x	x
19	x			x	x	x
20	x			x	x	x
21			x		x	
22			x			
23				x		
24	x			x		
25				x	x	x
26				x	x	x
27				x	x	x
28	x					
29	x	x	x	x	x	x
30			x			

x - Indicates the dimension which is measured during the specific hour of the program.

occupational requirements. The units involved here are career exploration and high school planning.

5 Problem Solving - To increase the student's ability to cope effectively with problems which arise while the student is working on career development. Decision making and high school planning are most significantly involved here.

6 Planning - To increase the student's ability to use long range planning in developing a career. This area involves high school programming and career exploration.

COMPARISONS

This section will contain a brief comparison of the writer's program and the four programs reviewed earlier. Creating a Career largely contains the same topics as the program developed by the writer. The difference is mainly in the depth of coverage. Creating a Career's decision making unit is much more extensive than the writer's program and if presentation time were increased, this is an area which should be covered in greater depth. The assessment section of Creating a Career is less applicable to grade nine students, as they do not seem to have developed the skills necessary for accurate self-assessment. The writer's grade nine program used instruments which were more objective than Creating a Career. The program developed by the writer is more extensive in the area of career search; it is however, less extensive in the area of attaining occupational goals.

Finally, the writer's program contains a section on high school registration which falls outside the scope of Creating a Career.

If the Index to Canadian Occupations were to be used in conjunction with a vocational guidance program, it would serve a similar function to the Occupational Exploration Kit in the writer's program. Like the Index to Canadian Occupations, the Occupational Exploration Kit (OEK) is a frequency checklist used to aid an individual in discovering career possibilities. The OEK is self-contained in that, in addition to the checklist materials, it contains monographs for the 400 occupations covered by the kit. Because the kit is self-contained, it is well suited to the needs of the grade nine students, in that they do not have to find alternate sources for their career searches. There are two drawbacks to the Occupational Exploration Kit not shared by the Index to Occupations. First, the kit is developed in the United States; and as a result all the career information is American. This does not affect job descriptions, but it requires the student to search out information which would be peculiar to Canada (eg. salary, training) from other sources. Secondly, the kit covers only 400 occupations, whereas the Index to Canadian Occupations covers all occupations found in the Canadian Classification and Dictionary of Occupations, approximately 14 300 different occupations.

Toward Affective Guidance and the writer's program

share four topics: decision making, career exploration, testing, and high school registration. Toward Affective Guidance contains also a unit on effective studying which is outside the scope of the writer's program. Again the decision making unit is more intensive than the comparable section in the writer's program. The unit in Toward Affective Guidance which deals with career exploration is less intense in terms of career study than the exploration unit in the program developed by the writer. The choice of a career to study is a free choice rather than being based on some form of assessment as in the writer's program. The high school orientation sections in the programs are very similar in what they hope to achieve for the student. These two programs are similar in sequence and content but vary in terms of depth of material covered.

Career Development and Life Management has several components similar to those contained in the program developed by the writer: decision making, testing, job search, and exploration of future occupational goals. As Career Development and Life Management is a three year, multi-level high school program, it is obvious that more material can be covered, both in terms of depth and scope. What can be stressed is that in the area of vocational development similar topics are covered by both programs.

As can be seen the writer's program contains many similar elements to the programs just reviewed. The writer's program opened with a decision making section. Throughout

the program the students were required to make decisions. The opening section was designed to aid them in making those decisions. The need for an assessment of each individual was apparent to the writer. This resulted in the development of the second section which involved an aptitude test and an interest inventory. The third section was career exploration. This section provided the student with the occupational data to make good career decisions. The final section, high school registration, was included as the writer observed the need for grade nine students to be able to make informed choices regarding high school courses.

HYPOTHESES

There are three major hypotheses which will be tested by this study:

1. It is expected that vocational maturity, as measured by an increase in score from pre-test to post-test on the Career Maturity Inventory, will occur for all individuals, regardless of group assignment.
2. It is expected that there will be a treatment effect, measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory, resulting in a difference between the control group and the experimental group.
3. It is expected that there will be no difference between the scores on the Career Maturity Inventory for the males and the females.

SUMMARY

This chapter contained an examination of Super's vocational developmental theory and of its modifications by Crites. The Career Maturity Inventory was discussed both in terms of function and statistics, to show its suitability as an evaluative instrument. A brief discussion pointed out the major curricular components in a vocational development program. Four locally used programs were reviewed and later compared to the writer's program. Finally, the writer's program, along with the rationale for the development of the program, was presented. The chapter concluded with a statement of three hypotheses relevant to this study.

III. RESEARCH METHOD

INTRODUCTION

This chapter will begin with a discussion of the sample involved in this study, followed by a description of the research method, including the type of analysis used. Finally, an expansion of the writer's program as outlined in Chapter II will be presented.

THE SAMPLE

The sample was drawn from a total population of 230 grade nine students at Spruce Grove Composite High School in Spruce Grove, Alberta. The original sample size was 106 ninth grade students, 51 males and 55 females. The sample was divided into two groups - experimental and control. The control group consisted of 52 ninth grade students and the experimental group of 54 ninth grade students. The division of the students into the two groups was based on course registration. Fifty-four students registered in a grade nine B option called 'Guidance Nine' and became the experimental group. The other 52 students (registered in other grade nine B options like Art Nine and Hunter Training) served as the control group. Due to the type of statistical analysis used, the total sample size was reduced to 96 students: 48 in the control group and 48 in the experimental group, each group containing equal numbers of males and females.

The assignments of subjects to the control or the experimental group was based on how the student registered. All students who registered for Guidance 9 in the first trimester were assigned to the control group. Of those who did not register in Guidance 9, an approximately equal number of students were selected, by classroom, for the control subjects. Therefore, assignment to the control or the experimental group was not a totally random process.

Although the assignment to the two groups may not have been totally random, there are three reasons why it is thought the sample was representative of the population. First, the classes were heterogeneous; that is, students were not assigned to a particular class on the basis of IQ or school achievement. Second, as the sample was about one-half the size of the population, the expectation is that the sample would be representative of the population. Third, all the students in grade nine had to take the Guidance 9 option at some time in the year. There are no apparent reasons why the students would select one trimester over another.

THE METHOD

The experimental design uses a test - re-test format with experimental and control groups. The first administration was given during the second week of September, 1977 to all the grade nine students in the study, regardless of the B option in which they were registered.

Administration proceeded as per the instructions given in the manual for administration of the CMI. Testing took place over two class periods, each containing about sixty minutes of testing. After the first administration each B option proceeded with instruction as determined by the respective curricula. The experimental group received the writer's program under the title Guidance Nine.

In the third week of December, thirteen weeks after the first administration of the CMI and at the conclusion of the respective courses, the CMI was administered to both groups again. Testing followed the same format as in the first administration: groups of about thirty students, over two days, about sixty minutes per day. After the second administration of the CMI, both the pre-test and post-test were scored and recorded. The results were then examined statistically for significance with respect to maturation, treatment effect, and sex difference. At this time any student who wished to receive the results of the testing was invited to make an appointment with the writer.

ANALYSIS

The analysis of the results began with descriptive statistics; the means and standard deviations for each group were examined. This was followed by a three-way analysis of variance, with group, sex, and pre-test - post-test results being the factors analyzed. The three-way analysis was run for each of the six sub-tests in the Career Maturity

Inventory, as well as for the total score obtained on the CMI.

THE PROGRAM

The program developed by the author consisted of approximately 30 hours of instruction. Students received the instruction in 80 minute time blocks every other day. With classes missed for assemblies, dances and other school functions, the duration of the course was thirteen weeks.

The course began with the administration of the CMI. This was followed by a discussion about expectations of the course held by the students and the writer. A short section on career decision making followed (aided by a film entitled Career Decision Making, 1974). The decision making model presented in the film was applied to both career decisions and to day-to-day decisions which faced the students. At this point the General Aptitude Test Battery (GATB) was administered. After administration, the GATB was scored and each student developed a profile. As well, the students used a reference book to list some of the Occupational Aptitude Patterns for which they were qualified. During this section of the program students were given the Self Directed Search (SDS) to complete. Also at this time the students were introduced to the Occupational Exploration Kit (OEK). They then proceeded to complete the student workbook that came with the OEK. The first assignment was then given. Each student was expected to develop a list of occupations from

the GATB, SDS, and the DEK for which they qualified. They were then to examine the lists and find common occupations or families of occupations to investigate further. In this assignment they were also expected to evaluate their progress in the course. To do this they were to apply the decision making model they had been exposed to earlier. The intent was to help each student pinpoint his progress and position in the process of career exploration (see Appendix 1 for a time line of the program and Appendix 2 for copies of the assignments given).

After the first assignment each student was to choose from three to five occupations for further study. Discussion followed on areas to investigate, places where information could be found, and length and detail of the investigation. The results of the investigation were to be written in report form and were to be handed in to the instructor as assignment two. The final segment of the program involved the student choosing, for further study, one or two occupations from the three to five he reported on. The further study was conducted in the form of an interview, in person or by telephone, with an individual currently employed in the occupation. If it could be arranged the student was encouraged to spend time on the job site with that person. The results from the interviews were submitted in written form as assignment three. After the third assignment each student spent time with the instructor on an individual basis to plan a high school program. The courses

were selected according to the following criteria: the student's marks in grade nine; occupations examined by the student with respect to interest and ability; and as well, the general desires of the student.

During the preparation of the high school program, the student was encouraged to solicit help and information from his parents. The final draft of the high school program was kept on file by the counsellor, and the student was encouraged to register for high school in accordance with the program developed. The course closed with a general discussion of the course and with the final administration of the CMI.

An informal evaluation was completed by the students at the end of the program. The majority of the students appeared to have difficulty seeing the validity of the program, that is how it could relate to their lives. Therefore the initial reaction of most of the students to the program was negative. A more detailed discussion of this point occurs in Chapter Five.

SUMMARY

This chapter has discussed the sample which composed the experimental and control groups. As well the research method, including the type of analysis used, was examined. Finally, a detailed description of the writer's program was offered .

IV. RESULTS

INTRODUCTION

In this chapter, the various scores obtained by the subjects on the Career Maturity Inventory are examined. The means and the standard deviations by group and by sex are given first. This is followed by a three way analysis of variance for each sub-test. In order for the three way analysis to proceed, each cell group was required to have the same population. The smallest cell contained 24 subjects. All other cells were subsequently reduced to maintain equal populations. This required the random deletion of data for 10 subjects. Consequently, the examination of the data proceeded for a total of 96 subjects: 48 in the control group and 48 in the experimental group; half of each group male and the other half female.

MEANS AND STANDARD DEVIATIONS

The means and the standard deviations were calculated for the pre-test and the post-test results. The calculations were done by group and by sex for the six sub-tests and the total data. Table 1 shows the means and the standard deviations by group. As can be seen from an examination of the table, gains were made on every sub-test for the experimental group. The control group made gains in every sub-test except Goal Selection, which showed a slight loss. In both groups the mean for Total Data showed an increase.

TABLE 1

Means and Standard Deviations by
Group for Pre-test and Post-test
on the CMI

Area	Experimental Group			Control Group		
	<u>Pre-test</u>	<u>S.D.</u>	<u>Post-test</u>	<u>S.D.</u>	<u>Post-test</u>	<u>S.D.</u>
Attitude Scale	33.33	4.60	35.83	5.19	33.58	5.11
Self-Appraisal	12.25	3.49	12.79	2.98	12.44	3.65
Occupational Information	13.42	3.01	15.35	2.73	14.31	2.89
Goal Selection	13.12	2.61	13.35	2.89	12.12	2.89
Planning	11.58	3.34	12.67	3.51	12.69	3.32
Problem Solving	10.38	2.89	11.10	2.94	10.54	3.40
Total Data	94.19	12.96	101.04	14.24	95.60	15.59
					100.23	15.18

On the pre-test, the control group has a higher mean for every sub-test, except Goal Selection, than the experimental group. Examining the post-test results, it is found that the control group has a higher mean on only three sub-tests, Self-Appraisal, Planning, and Problem Solving. Both groups have the same mean score on Occupational Information. The experimental group shows higher mean scores on Attitude Scale, Goal Selection, and Total Data. In general, although gains were made by both groups over the course of the study, the experimental group made larger gains on all the sub-tests except Problem Solving.

Table 2 shows the means and the standard deviations for the pre-test and post-test results by sex. An examination of the table indicates that the female's mean scores are higher on every sub-test than the male's mean scores. This applies for both the pre-test and post-test results. As well, the females show larger mean gains for every sub-test except Self-Appraisal, in which the males show larger gains. Males and females gained the same amount on the Attitude Scale.

THREE WAY ANALYSIS OF VARIANCE

The three factors involved in the three way analysis of variance are: Factor A, Group, involves the control group and the experimental group; Factor B, Sex, provides a male/female analysis; Factor C, Pre-Post, contains the pre-test and post-test results as measured by the Career Maturity Inventory. The balance of the chapter is devoted to

TABLE 2

Means and Standard Deviations by
Sex for Pre-test and Post-test
on the CMI

Area	Male Sex			Female Sex		
	<u>Pre-test</u>	<u>S.D.</u>	<u>Post-test</u>	<u>S.D.</u>	<u>Post-test</u>	<u>S.D.</u>
Attitude Scale	32.33	5.38	34.35	3.98	36.60	4.61
Self-Appraisal	11.42	3.95	12.12	2.86	13.62	2.99
Occupational Information	13.58	3.18	14.96	2.72	15.75	2.62
Goal Selection	12.33	3.02	12.25	2.53	13.15	3.07
Planning	11.41	3.78	12.23	2.73	13.94	3.05
Problem Solving	9.50	3.03	10.17	2.97	12.40	2.82
Total Data	90.60	15.87	95.88	11.06	105.40	13.27

an examination of the three way analyses for each of the sub-tests and for the total data. Significance for each section is at the $p < 0.05$ level.

ATTITUDE SCALE

As indicated in Table 3, the analysis of variance for this sub-test shows a significant difference for two factors, Factor B, Sex ($p = .014$) and Factor C, Pre-Post ($p = .000$). The post-hoc contrasts for Factor B aid in the analysis. The significant differences in sex are in two areas: one, between the male pre-test scores and the female pre-test scores, with the females having a greater mean score; two, between the male post-test scores and the female post-test scores, again with the females showing a larger mean score. These results do not support hypothesis three which states that it is expected that there will be no difference between the scores on the Career Maturity Inventory for the males and the females.

The post-hoc results for Factor C indicate significance in four areas: one, between the control group's pre-test results and the control group's post-test results; two, between the experimental group's pre-test results and their post-test results; three, between the male's pre-test results and their post-test results; four, between the female's pre-test results and the female's post-test results. In each of the preceding instances the post-test results had a larger mean. These results indicate that there

TABLE 3
Three-Way Analysis of Variance
For Attitude Scale

SOURCE	SS	DF	MS	F	P
BET SUBJ	3849.88	95			
A	2.50	1	2.50	0.06	0.801
B	243.00	1	243.00	6.21	0.014*
AB	4.13	1	4.13	1.11	0.746
SUBJ W GROUP	3600.25	92	39.13		
WITHIN SUBJ	1096.00	96			
C	196.00	1	196.00	20.33	0.000*
AC	11.13	1	11.13	1.15	0.286
BC	0.06	1	0.06	0.01	0.936
ABC	1.94	1	1.94	0.20	0.655
C X SUBJ W G	886.88	92	9.64		

*P < .05

is no significant difference between groups but rather a significant difference between the pre-test and post-test scores within each group. Further, there is an indication that although there is a difference between the males and females there is also a difference between the pre-test and post-test responses within each sex. These data support hypothesis one which states that it is expected that vocational maturity, as measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory, will occur for all individuals regardless of group assignment. The same data fail to support hypothesis two, namely, that it is expected that there will be a treatment effect, measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory resulting in a difference between the control group and the experimental group.

SELF-APPRAISAL

The results for this sub-test are presented in Table 4. A significant difference for this sub-test is indicated for Factor B, Sex ($p=.006$). The post-hoc contrasts for this factor indicate significance in three areas: one, a significant difference between the scores obtained by the males and the females on the pre-test, with the females having the greater mean score; two, a significant difference between the male and female post-test scores, again with the females having the greater mean score; three, a significant

TABLE 4
Three-Way Analysis of Variance
For Self-Appraisal

SOURCE	SS	DF	MS	F	P
BET SUBJ	1716.20	95			
A	1.50	1	1.50	0.09	0.768
B	135.00	1	135.00	7.88	0.006*
AB	3.80	1	3.80	0.22	0.639
SUBJ W GROUP	1575.90	92	17.13		
WITH SUBJ	451.50	96			
C	13.55	1	13.55	2.86	0.094
AC	0.00	1	0.00	0.00	0.977
BC	1.50	1	1.50	0.32	0.575
ABC	0.63	1	0.63	0.13	0.716
C X SUBJ W G	435.81	92	4.74		

*P < .05

difference between the scores of the experimental males and the experimental females, favoring the females.

These results do not support hypothesis three which states that it is expected that there will be no difference between the scores on the Career Maturity Inventory for the males and the females. In addition, there are no data from this sub-test to support either hypothesis one or two. Hypothesis one states that it is expected that vocational maturity, as measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory, will occur for all individuals regardless of group assignment. Hypothesis two states that it is expected that there will be a treatment effect, measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory, resulting in a difference between the control group and the experimental group.

OCCUPATIONAL INFORMATION

The three way analysis for this sub-test indicates a significant difference for Factor C (see Table 5), Pre-Post ($p=.000$). The post-hoc contrasts show four areas of significance as they relate to Factor C: one, between the control group's pre-test scores and the control group's post-test scores; two, between the experimental group's pre-test scores and the same group's post-test scores; three, between the male's pre-test scores and the male's post-test scores; four, between the female's pre-test scores

TABLE 5
Three-Way Analysis of Variance
For Occupational Information

SOURCE	SS	DF ^a	MS	F	P
BET SUBJ	1334.20	95			
A	9.63	1	9.63	0.68	0.410
B	22.00	1	22.00	1.56	0.214
AB	8.76	1	8.76	0.62	0.432
SUBJ W GROUP	1293.81	92	14.06		
WITHIN SUBJ	359.50	96			
C	106.50	1	106.50	40.56	0.000*
AC	9.63	1	9.63	3.67	0.059
BC	0.63	1	0.63	0.24	0.625
ABC	1.17	1	1.17	0.44	0.506
C X SUBJ W G	241.56	92	2.63		

*P < .05

and their post-test scores. In each instance the post-test score had a greater mean than the pre-test score.

These data tend to support the first hypothesis. Hypothesis one states that it is expected that vocational maturity, as measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory, will occur for all individuals regardless of group assignment. No evidence is present in this sub-test to conflict with hypothesis three which states that it is expected that there will be no difference between the scores on the Career Maturity Inventory for the males and the females. There is no support for hypothesis two which states that it is expected that there will be a treatment effect, measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory, resulting in a difference between the control group and the experimental group.

GOAL SELECTION

As can be seen in Table 6, for this sub-test the analysis of variance shows a significance for Factor A, Group ($p=.028$). Significance for this factor is shown in two areas by the post-hoc contrasts: one, between the control group's post-test scores and the experimental group's post-test scores, the experimental group having the larger mean score; two, between the scores obtained by the control group males and the experimental group males, with the experimental group again having the greater mean score.

TABLE 6
Three-Way Analysis of Variance
For Goal Selection

SOURCE	SS	DF	MS	F	P
BET SUBJ	1290.50	95			
A	64.17	1	64.17	4.96	0.028*
B	26.25	1	26.25	2.03	0.158
AB	8.76	1	8.76	0.68	0.413
SUBJ W GROUP	1191.31	92	12.95		
WITHIN SUBJ	370.50	96			
C	0.25	1	0.25	0.07	0.799
AC	1.17	1	1.17	0.30	0.584
BC	1.18	1	1.18	0.30	0.583
AVC	11.50	1	11.50	2.97	0.088
C X SUBJ W G	356.40	92	3.87		

*P < .05

The data from this sub-test tend to support hypothesis two which states that it is expected that there will be a treatment effect, measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory, resulting in a difference between the control group and the experimental group. There is no data in this sub-test to conflict with hypothesis three which states that it is expected that there will be no difference between the scores on the Career Maturity Inventory for the males and the females. Therefore hypothesis three is upheld with respect to Goal Selection. There is no data to validate hypothesis one which states that it is expected that vocational maturity, as measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory, will occur for all individuals regardless of group assignment.

PLANNING

Table 7 shows a significant difference for Factor B, Sex ($p=.012$), and Factor C, Pre-Post ($p=.003$), in this sub-test. As well, there is an interaction effect between Factors A, B, and C ($p=.007$). Post-hoc contrasts for Factor B indicate a significant difference in three areas: one, between the experimental group males and the experimental group females, with the females having the greater mean score; two, between the male's score on the pre-test and the female's score on the pre-test, the females having the larger mean score; three, between the male's post-test

TABLE 7
Three-Way Analysis of Variance
For Planning

SOURCE	SS	DF	MS	F	P
BET SUBJ	1852.20	95			
A	45.05	1	45.05	2.47	0.120
B	118.75	1	118.75	6.50	0.012*
AB	8.75	1	8.75	0.48	0.490
SUBJ W GROUP	1679.65	92	18.26		
WITHIN SUBJ	521.50	96			
C	43.13	1	43.13	9.00	0.003*
AC	0.88	1	0.88	0.18	0.669
BC	0.88	1	0.88	0.18	0.669
ABC	35.88	1	35.88	7.49	0.007*
C X SUBJ W G	440.73	92	4.79		

*P < .05

scores and the female's post-test scores, with the females again having the greater mean scores. This analysis does not support hypothesis three which states that it is expected that there will be no difference between the scores on the Career Maturity Inventory for the males and the females.

The post-hoc contrasts for Factor C indicate there is a significant difference in two areas: one, between the scores on the post-test obtained by the experimental group and the control group, with the control group having the larger mean score; two, between the female's pre-test scores and their post-test scores, with the post-test scores being larger. With this information, no support can be given to either hypothesis one or two. Hypothesis one states that it is expected that vocational maturity, as measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory, will occur for all individuals regardless of group assignment. Hypothesis two states that it is expected that there will be a treatment effect, measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory, resulting in a difference between the control group and the experimental group.

The interaction between Factors A, B, and C, appears to be due to a sex effect. An examination of the results shows that the control males are making relatively large gains from pre-test to post-test, while the control females are not making any gains. At the same time, the experimental females are making relatively large gains, pre-test to

post-test, while the experimental males are not gaining. The control males and the experimental females are making the gains from pre-test to post-test. This causes an interaction of the three factors.

PROBLEM SOLVING

The three way analysis for this sub-test (see Table 8) shows significance for Factors B, Sex ($p=.000$) and C, Pre-Post ($p=.007$). For Factor B the post-hoc contrasts show significant differences in four areas: one, a difference in the pre-test scores between the males and females, the females having the larger mean score; two, between the male post-test scores and the female post-test scores, the females having the greater mean score; three, between scores for the control males and the control females, again with the females having the greater mean score; four, between scores for the experimental group males and the experimental group females, the females having the larger mean. These data do not support hypothesis three which states that it is expected that there will be no difference between the scores on the Career Maturity Inventory for the males and the females.

For Factor C, the post-hoc contrasts indicate a significant difference in two areas: one, between the control group's pre-test scores and the control group's post-test scores, with the post-test scores showing a greater mean; two, between the female's pre-test scores and

TABLE 8
Three-Way Analysis of Variance
for Problem Solving

SOURCE	SS	DF	MS	F	P
BET SUBJ	140.25	95			
A	3.25	1	3.25	0.25	0.619
B	206.25	1	206.25	15.77	0.000*
AB	7.13	1	7.13	0.55	0.462
SUBJ W GROUP	1203.61	92	13.08		
WITHIN SUBJ	427.50	96			
C	32.50	1	32.50	7.69	0.007*
AC	0.43	1	0.43	0.10	0.752
BC	1.18	1	1.18	0.28	0.559
ABC	4.38	1	4.38	1.03	0.312
C X SUBJ W G	389.02	92	4.23		

*P < .05

their post-test scores, again the post-test scores having the larger mean. This would indicate that there is no difference between the groups, but that rather the difference shows within the control group itself. As the first post-hoc contrast shows no difference between the experimental group's pre-test to post-test scores, it must be concluded that there is not enough evidence to support hypothesis one. Hypothesis one states that it is expected that vocational maturity, as measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory, will occur for all individuals regardless of group assignment. The second post-hoc contrast indicated that in addition to there being a difference between the sexes, there is also a difference within the female group. There is no data to support hypothesis two from this sub-test. Hypothesis two states that it is expected that there will be a treatment effect measured by an increase in scores from pre-test to post-test, on the Career Maturity Inventory, resulting in a difference between the control group and the experimental group.

TOTAL DATA

In Table 9 the cumulative data from all the sub-tests of the CMI are shown. Significance is found for Factor B, Sex ($p=.001$), and Factor C, Pre-Post ($p=.000$). The post-hoc contrasts for Factor B indicate four areas of significance: one, between the scores attained by the control group males

TABLE 9
Three-Way Analysis of Variance
For Total Data

SOURCE	SS	DF	MS	F	P
BET SUBJ	36528.00	95			
A	5.00	1	5.00	0.01	0.906
B	3934.00	1	3934.00	11.11	0.001*
AB	1.00	1	1.00	0.00	0.958
SUBJ W GROUP	32588.00	92	354.21		
WITHIN SUBJ	4796.00	96			
C	1582.00	1	1582.00	46.78	0.000*
AC	59.00	1	59.00	1.74	0.190
BC	10.00	1	10.00	0.30	0.588
ABC	34.00	1	34.00	1.01	0.319
C X SUBJ W G	3111.00	92	33.82		

*P < .05

and the control group females; two, between the experimental group males and the experimental group females; three, between the males' scores on the pre-test and the females, scores on the pre-test; four, between the males' scores on the post-test and the females' scores on the post-test. In all instances the females displayed greater mean scores. This leads to the rejection of hypothesis three for Total Data. Hypothesis three states that it is expected that there will be no difference between the scores on the Career Maturity Inventory for the males and the females.

The post-hoc contrasts for Factor C indicate four areas of significance: one, that there is a significant difference between the control group's results from pre-test to post-test; two, between the experimental group's scores from pre-test to post-test; three, between the males' scores on the pre-test and their scores on the post-test; four, between the females' scores on the pre-test when compared to the post-test. In all instances the post-test results showed a larger mean score. This tends to support hypothesis one which states that it is expected that vocational maturity, as measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory, will occur for all individuals regardless of group assignment.

There is no data in this section to support hypothesis two which states that it is expected that there will be a treatment effect, measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory,

resulting in a difference between the control group and the experimental group.

HYPOTHESES SUMMARY

In this summary, each hypothesis will be examined with respect to the results given from each of the six sub-tests. Then an examination of the hypotheses in light of the results from Total Data section will be given, followed by a concluding statement. Table 10 gives a visual summary of the information contained in this section (note hypothesis 3 is stated in the negative).

Hypothesis one stated that it was expected that vocational maturity, as measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory, would occur for all individuals regardless of group assignment. It was supported by the sub-tests Attitude Scale and Occupational Information. It was rejected by the sub-tests Self-Appraisal, Goal Selection, Planning, and Problem Solving.

Hypothesis two stated that it was expected that there would be a treatment effect, measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory, resulting in a difference between the control group and the experimental group. This hypothesis was supported by one sub-test, Goal Selection. It was rejected by the sub-tests Attitude Scale, Self-Appraisal, Occupational Information, Planning, and Problem Solving.

TABLE 10^a
Hypothesis Summary

<u>Area</u>	<u>Hypothesis 1</u>	<u>Hypothesis 2</u>	<u>Hypothesis 3</u>
Attitude Scale	+	-	-
Self-Appraisal	-	-	-
Occupational Information	+	-	+
Goal Selection	-	+	+
Planning	-	-	-
Problem Solving	-	-	-
Total Data	+	-	-

'-' denotes hypothesis rejected
'+' denotes hypothesis accepted

Hypothesis three stated that it was expected that there would be no difference between the scores on the Career Maturity Inventory for the males and the females. This hypothesis was supported by the Occupational Information scale and rejected by the sub-tests Attitude Scale, Self-Appraisal, Goal Selection, Planning, and Problem Solving. The total data from the CMI supported hypothesis one and rejected hypotheses two and three.

SUMMARY

The results of these analyses demonstrate several aspects of this study as stated in the research hypotheses. First, it was expected that all subjects would experience vocational maturation over the length of the study, regardless of whether or not they had been exposed to the treatment program. Of note is the fact that all subjects made gains from pre-test to post-test during the period of the study. The only exception was the control group, which demonstrated a slight loss on the Goal Selection sub-test. Significant gains were made by both groups on the Attitude Scale, Occupational Information, and Total Data. Only the control group made significant gains on the Problem Solving sub-test. All other sub-tests reflected increased but non-significant gains by the control and experimental groups. Again, the only exception was the control group, showing a slight loss on Goal Selection.

Second, it was expected that the writer's program would

influence the vocational maturity of the students who were exposed to it. This influence would be measured by a greater increase on the scores on the CMI for the experimental group. Although the experimental group did make larger gains than the control group on every sub-test except Problem Solving, the gains were not statistically significant. Only Goal Selection showed significant gains in this area.

Third, it was expected that there would be no difference in the way the males and the females responded to the CMI. The opposite was found to be true. Significant differences between the sexes were found on the pre-tests and post-tests of the following scales: Attitude, Self-Appraisal, Planning, Problem Solving, and Total Data. Occupational Information and Goal Selection showed no significant differences; however, the females scored higher in all areas on these sub-tests too.

V. DISCUSSION

INTRODUCTION

This chapter contains a discussion of the three hypotheses. The discussion will combine two factors; one, concepts from the review of the literature; and two, statistical findings. Also contained in this chapter will be a discussion of the modifications and recommendations to be made regarding the writer's program and its future use in schools.

LIMITATIONS OF THE STUDY

There are two major limitations to this study. One, the method in which the students registered in the writer's program meant the selection of the subjects for the control and experimental groups was not a random process. The second limitation is the students' attitude toward the program would affect the impact the program would have on them, hence the rate of their career maturity.

HYPOTHESIS ONE

Hypothesis one stated; it is expected that vocational maturity, as measured by the Career Maturity Inventory, will occur for all individuals regardless of group assignment. According to Super, career maturity is an orderly, developmental process. Crites also concured with this view, seeing career maturity as increasing monotonically with

time. This developmental, or maturational, process is a central concept in the theories of both Super and Crites. It was therefore hypothesized that each individual would show vocational maturation over the length of the study, and that this maturation would occur independently of any treatment program.

This vocational maturation was measured by significance in Factor C, Pre-Post. Significance for this factor indicated that an individual's scores on the CMI would increase appreciably from pre-test to post-test. Three of the seven areas analysed supported this hypothesis. They were Attitude Scale, Occupational Information, and Total Data. Superficially it may have appeared that because Total Data supported this hypothesis it should be retained. A closer examination however indicated that Attitude Scale has an inordinate influence on Total Data, as it makes up fully one half of the items for Total Data. Therefore, if significance is found for Attitude Scale, it is almost certain that significance will be found for Total Data. This lead to an alternate interpretation. It was more accurate to state that hypothesis one was supported by the affective dimension of the CMI, as measured by the Attitude Scale. It was not supported by the cognitive dimension as measured by Self-Appraisal, Occupational Information, Goal Selection, Planning, and Problem Solving, as only Occupational Information supported this hypothesis.

The fact that others had found that vocational

maturation occurred over time (Herr & Enderlein, 1976 and Kershner & Blair, 1976) raised the question as to whether if the study had run longer than 13 weeks would significant differences have been found in the cognitive dimension as well. It also raised another question as to whether or not maturation in the affective dimension precedes maturation in the cognitive dimension. Regardless of the answers to these questions, in this study the conclusion was that hypothesis one was to be retained when viewed from an affective perspective and to be rejected when viewed from a cognitive perspective. Therefore it can be stated that the subjects experienced affective vocational maturation over the 13 weeks that the study ran.

HYPOTHESIS TWO

Hypothesis two stated, it is expected that there will be a treatment effect, measured by an increase in scores from pre-test to post-test on the Career Maturity Inventory resulting in a difference between the control group and the experimental group. The CMI has been applied as an evaluative instrument to many programs. The results seemed as varied as the programs. Some programs found significance, for example Matthews & O'Tuel (1978) while other studies found little significance, for example, Bookhamer (1977). As the writer's program contained aspects similar to many other vocational programs, and was broad in scope, there was no reason to suggest it would not positively affect the career

maturity of the individual's involved in the treatment portion of the study.

The treatment effect was measured by significance on Factor A, Group. Significance here would indicate that something had occurred to one group to cause it to be different than the other group. If the study was controlled properly, the only difference between the groups would be that one group received the writer's program. Although the expectation was that the experimental group would have significantly higher post-test scores on the CMI this was not the case. It was found that there was no significant difference on the post-test between the two groups, except on the Goal Selection sub-test. Therefore, hypothesis two must be rejected. Although this hypothesis was rejected, it should be noted that the experimental group made larger gains on every sub-test except Problem Solving. Therefore, although hypothesis two was rejected, the direction and magnitude of the gains made by the experimental group were encouraging, but not statistically significant.

Due to the inconclusiveness of previous studies and the relatively small gains made by the experimental group in this study it would appear that consideration should be given to Clark's (1977) statement that career maturity may be resistant to acceleration.

HYPOTHESIS THREE

Hypothesis three stated; it is expected that there will be no difference between the scores on the Career Maturity Inventory for males and females. Crites (1973b) maintained that there was no difference in the application of the CMI to males and females. Other studies have shown there are differences in the treatment effects for males and females (Bookhamer, 1977) and that the sexes show varying rates of maturity (Herr & Enderlein, 1976). Although there are data to contradict Crite's findings, the data do not lead to any conclusive statements, except that Crites may not be correct. Therefore it was expected that there would not be any differences attributable to sex.

Any differences attributable to a sex factor were measured by Factor B, Sex. Significance here indicated that males and females did respond differently on the CMI. A significant difference for sex was found on every sub-test except Occupational Information. It can be stated that for this sample, males and females showed no difference on the Occupational Information sub-test but showed significant differences on every other sub-test of the CMI. This supported Herr and Enderlein's findings that females generally score higher than males.

Adelstein and Webster (1979) suggested that research and interpretation with the Attitude Scale of the CMI proceed separately for males and females. The results of this study not only strongly supported them, but also

suggested their statement could be expanded to include the whole of the Career Maturity Inventory. In conclusion, the third hypothesis was rejected.

EVALUATION AND RECOMMENDATIONS

In the writer's view several factors played a part in the reaction of the students. First, the course was given to the grade nines as a B option. Historically the B options were not considered important by the students. Their grades in these courses did not enter into the promotion decisions of the school, nor did they directly affect the future course selection made by the student. Therefore, unless the course had some intrinsic, or extrinsic, value to the student it was often regarded as unnecessary. If the program were made part of the language arts or social studies curriculum it would give the course the necessary extrinsic value and perhaps overcome this deficiency. Guidance nine was a compulsory option. This apparent paradox meant that although the course was an option, every grade nine was expected to participate at one time during the year. The result was that many of the students had neither the desire nor the readiness for this program. These were the factors that determined much of the negative reaction to the program.

Those who responded positively to the program did so because they saw some value in what was being done. The goal of their participation was to obtain information that would

be of value to them; the mark was secondary. The other group who responded positively was the group of students who do well in all areas of school. They get good grades and try to please instructors regardless of subject taken.

It is of interest to note however that in the following school year, when these students were in grade ten, by far the majority expressed positive feelings about the program. It would seem that at the grade nine level there was not enough readiness on the part of the student to realize the benefits of this type of a program. Therefore one recommendation the writer would make is that this program be moved - perhaps to the grade eleven level to prepare students for post-secondary education or the world of work. Perhaps there would be a greater readiness at that level. If the program were to stay at the grade nine level some modifications would have to be made.

One such modification would involve the type of interest inventory used. The grade nine student does not have enough experience to have his interests evaluated by the Self Directed Search. There were several indications of this. One, many of the profiles were flat. Not only were they low, but they did not indicate any major areas of interest. Two, by far the majority of the students needed help with some of the sections. For example, in the section that asks the student to select occupations he feels he might enjoy, many students did not even know how to pronounce the various occupations and even fewer knew the

functions of the individuals in the occupations. In other sections lack of experience with part-time jobs and not having received formal instruction in clerical or vocationally related courses proved to be a handicap. Three, students found the scoring procedures complex and frequently made mathematical errors. Finally, often areas that according to Holland's theory were not to combine, in fact did combine. For example, a frequently occurring combination that has no theoretical support, was the Realistic-Artistic-Social pattern. This often resulted in no valid interest patterns showing up. The result was that the SDS could not provide the student with careers he might wish to consider. If the program were to stay at the grade nine level it is the writer's opinion that the SDS be replaced by the Kuder Vocational Preference Record. A supplementary booklet is available that gives specific occupational listings for each of the ten major areas. The Kuder and the supplement should prove more useful than the SDS for this level of instruction.

Another modification that would be made is to replace the Occupational Exploration Kit with the Index To Canadian Occupations. The OEK is very good in that it is kept up to date and presents data both verbally and visually. The one drawback for the student is that the information presented is American. For the most part this did not make any difference. For example in the presentation of working conditions or duties that one must perform to do the job

there was little if any difference. However for areas like education required, salary, availability, or related associations the Canadian information was more useful. The ICO would do everything the workbook and the occu-scan would do in the OEK; however, it must be realized that the presentation of materials is not as well packaged with the ICO. As well with the ICO a set of Guidance Council Monographs should be available to give the student Canadian information. The final advantage of the ICO is that it is coded to the Canadian Classification and Dictionary of Occupations which would mean that there would be a unified system tying the whole program together.

In summary, it should be noted that the majority of immediate student reaction to the program was negative. However, after the students had graduated and were in high school they began to recognize the benefits of what they had done in the course. This, along with other factors, indicated to the writer that some modifications would have to be made to the program if it were to remain at the grade nine level: One, that the course become a true option. This would allow students who desired to take the course to do so. Hopefully this group of students would display a greater readiness than those who did not wish to take the course but were required to do so; Two, that the SDS be replaced by the Kuder; three, that the OEK be replaced by the ICO; finally, that serious consideration be given to moving the program to the grade eleven level where the students are more mature

and have had more experience.

SUMMARY

The major findings of this study follow. This group of grade nine students displayed career maturation over time with and without participating in a vocational guidance program. Those who did participate in the program appeared to make larger gains in career maturity than those who did not participate; however, the gains were not significantly larger. Finally, females scored higher on all areas of the pre-test than did the males; therefore, if the Career Maturity Inventory is to be used with groups containing both sexes, any analysis of results should be done independently by sex.

The writer made the following recommendations regarding the program; one, that the entire program be moved to the grade eleven level where it is anticipated that there would be a greater readiness on the part of the students, hence a greater benefit for them; two, that the Occupational Exploration Kit be replaced by the Index To Canadian Occupations and the Guidance Council Monographs; three, that if the program is to remain at the grade nine level, the Self-Directed Search be replaced by the Kuder Vocational Preference Record; finally, if the program is to remain at the grade nine level, it be incorporated in the Language Arts or Social Studies curriculum. This would give the program extrinsic value from the student perspective.

Several questions are raised by this study and are left unanswered. One, if the study had run longer would more significance have been found among the sub-tests which form the cognitive dimension of the CMI?; two, did maturation occur first in the affective dimension and only later in the cognitive dimension?; three, was the lack of conclusive results in studies which have used a program to accelerate career maturity, due to career maturity being resistant to accelerated change? Perhaps further study will at some point reveal the answers to these questions.

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APPENDIX 1

TIME LINE FOR VOCATIONAL GUIDANCE NINE

VOCATIONAL GUIDANCE AND DECISION MAKING

EQUIPMENT NEEDED: GATB, FILM (Career Decision Making),
OCCUPATIONAL EXPLORATION KIT, SELF DIRECTED SEARCH,

HOURL #1-Introduction - define goals, what I expect, what
they expect. General overview of the course.

HOURL #2-Show film "Career Decision Making" 1974 E.P.S.B.
Discuss 8 major steps to decision making. How to
implement these steps in making vocational decisions.

HOURL #3-Conclude discussion, work through some examples.

HOURL #4-Explain the purpose of testing in vocational
guidance. Give the GATB.

HOURL #5-Continue testing.

HOURL #6-Conclude aptitude testing.

HOURL #7-Explain and administer S.D.S. score and interpret.

HOURL #8-Explain GATB and profile. Meaning of aptitude test.
Give them O.A.P.'s to list 30 occupations they are
interested in and have abilities for. Correlate these
results with the results of the profile. Use the CCDO as
descriptors listed for various occupations.

HOURL #9-Finish with aptitude profiles.

HOURL #10-Interpret S.D.S. areas of major interest. Group
discussion on areas of interest.

HOURL #11-Generate alternatives. Come up with a list of
possible occupations. Occupations for which they have

both interest and abilities. Group discussion on the occupations each has chosen as areas of interest and aptitude as well reasons for their choice in light of their profiles.

HOURL #12-Explain the OEK Booklet, allow the students to complete it. After it is completed discuss "What did you learn about yourself?"

HOURL #13-Continue with OEK

HOURL #14-Explain use of occu-scan and job family books, as well job cards. Record data at back of the student record book.

HOURL #15-Continue in the use of the OEK correlate with GATB and S.D.S.

HOURL #16-Make-up class for those behind; Group evaluation of their work with the OEK. Written assignment dealing with the evaluation of their progress from the beginning of course until now. To be handed in at the beginning of the 17th hour.

HOURL #17-Have each one choose 3-5 occupations or a family of occupations they have an interest and ability in. Discuss criterion for selection in terms of 'decision making'. Of these occupations chosen each student is to do an in depth study. Preparing 1-2 page paper on each occupation. Included in this occupational paper should be a discussion of the occupation, duties, working conditions, salary, education required, places in Canada where job can be done, places in Alberta where the job

can be done, availabilities of the job now and in the future. It is possible some of this information can be obtained from C.M.C. publications.

HOURL #18-Continue with papers.

HOURL #19-Continue with papers, to be handled in during the 20th hour.

HOURL #20-Group discussion on papers, sharing of what each has found about various occupations. Reporting on own papers.

HOURL #21-Each student is to select 2 or 3 occupations (preferably ones they have reported on) and if possible to find where the people to do this job are. To arrange an interview with the person doing this job, by phone or in person. if possible to arrange to spend time on the job.

HOURL #22-Spend time on the job and finish up any work not done.

HOURL #23-Write up experience on job or interviewing person doing the job. 1 page on each job.

HOURL #24-Group discussion on findings relating to experience on the job. Hand in paper.

HOURL #25-To develop a high school program to fit their interests and abilities. Stressing core subjects as well choosing options to reinforce abilities and interests.

HOURL #26-Continue setting up high school program. For those not going to high school this time can be spent on preparing for job search.

HOUR #27-Finish off program to make sure each program by the grade 12 level student has the proper entrance requirements to the post secondary institution of his choice. The purpose is to stress High School program not advanced educational programs. Group discussion of various programs people have developed.

HOUR #28-Group discussion reviewing "decision making" and the process involved in choosing a specific high school programme.

HOUR #29-Write paper focusing on the key decision points in narrowing their choices to a few occupations. As well to be turned in at this time is their high school program.

HOUR #30-Finish paper evaluation of course, written and oral.

APPENDIX 2

VOCATIONAL GUIDANCE ASSIGNMENTS

VOCATIONAL GUIDANCEASSIGNMENT #1

The major thrust of this assignment is for you to evaluate your progress from the beginning of the course until now. In this evaluation some major points should be considered. One - areas that were helpful. Two - areas that were not helpful. Three - short statement on what you learned about yourself from each test. Four - other data that you deem significant. As well with this assignment you will turn in the list of occupations you have made. The format should be as follows:

<u>Self Directed Search</u>	<u>General Aptitude T B</u>	<u>Occupational Exploration Kit</u>
1.	1.	1.
2.	2.	2.
3.	3.	3.
.	.	.
.	.	.
.	.	.

As well there should be a composite list turned in using the following headings:

Jobs appearing in all three columns.

Jobs appearing in two out of the three columns.
(List in brackets which two)

Jobs that do not appear in any columns that you feel you would like to do.

In the event that you cannot find any common jobs you should then proceed to list major areas of interest and ability found in the results. If you prefer they could be called major job themes or families.

It would be of great advantage to you to keep a copy of this

assignment as it will aid you later on in the course.

VOCATIONAL GUIDANCEASSIGNMENT #2

Based on your data from assignment number one, you are to select 3-5 occupations for further study. A minimum of two or three occupations are to be selected from the columns "jobs appearing in all three columns" and/or "jobs appearing in two columns". One or two may be selected from the column "jobs that do not appear". The selection of these three to five occupations should be discussed in terms of the 8 steps of decision making (as per VTR).

In addition for each occupation chosen an in depth study must be done. This study will be in the form of a paper. One 300-500 word paper for each occupation chosen. Included in this occupational paper should be a discussion of the occupation in general, duties on the job, working conditions, salary, education and/or training required, places in Canada and/or Alberta where the job can be done, availabilities of the job now and in the future, plus other information that you feel is important.

If you cannot find at least 3 individual occupations to report on you may do a 1000-1250 word paper on the job family of your choice.

VOCATIONAL GUIDANCEASSIGNMENT #3

You are to choose 2 or 3 of the occupations reported on in Assignment #2. You are to set up an interview with a person doing the job and, if possible, to arrange for time on the job. The interview may be in person or on the telephone.

You are to hand in a 250 word paper for each occupation chosen. To be discussed in the paper are things you found out about the job that you did not learn from the write-ups you did. As well, include a paragraph as to whether or not you feel you would enjoy this job, and why or why not.

LEAF 90 OMITTED IN PAGE NUMBERING.